Title (en)
TOOL FOR SHAPING ARTICLES

Publication
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Application
EP 81109785 A 19811119

Priority
DK 494080 A 19801119

Abstract (en)
[origin: EP0052380A2] A tool for shaping articles, such as tools for drawing, bending, and vacuum shaping, e.g., for making automobile body parts, has an active shaped surface part which is made by casting a cement-bound material (15) directly against the corresponding surface part of the model (12). This cementbound material (15) has a coherent matrix comprising A) homogeneously arranged inorganic solid particles of a size of from about 50 ANGSTROM to about 0.5 mu m, or a coherent structure formed from such homogeneously arranged particles, and B) densely packed solid particles having a size of the order of 0.5 - 100 mu m and being at least one order of magnitude larger than the respective particles stated under A), or a coherent structure formed from such densely packed particles, the particles B preferably being Portland cement particles. Particles A are preferably ultrafine silica particles formed by growth from vapour phase and are substantially densely packed in the voids between the particles B. Particles A are especially present in an amount of 10 - 30% by volume, calculated on the combined volume of the particles A + B. Composite material for forming the matrix typically comprises Portland cement, ultrafine silica, water in low proportion, and a concrete superplasticizer in high proportion, optionally with additional bodies such as fibers, and is easily shapeable. Preferably, matrix additionally comprises particles which are of a strong material such as refractory grade bauxite. and is reinforced. Tool is easy to make and has a long useful life.

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[ED] EP 0042935 B1 19881026

Cited by
EP0341797A1; FR2635026A1; EP1295692A1; EP0359601A1; DE102014001947A1; DE102014001947B4; EP2072205A1; US8283026B2; WO2009077524A3

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